the tracks to increase the inductance of the track and thereby to bring the monitored parameter nearer to a predetermined value.

2. A method according to claim 1, wherein the conductive material is removed from the track by laser etching an aperture in the track, leaving the edges of the track intact on either side of the aperture.

3. A method according to claim 1 for producing an antenna in which the substrate is substantially cylindrical and the tracks include portions on a cylindrical surface of the substrate and a flat surface of the substrate, wherein the conductive material is removed from a track portion or portions located on the flat surface.

4. A method according to claim 1 for producing an antenna having a plurality of helical track portions located in a substantially cylindrical substrate surface, and a plurality of respective connecting track portions located on a substantially flat end surface of the substrate to connect the helical track portions to an axial feeder, wherein the material removal step comprises forming a cut-out in at least one of the connecting track portions.

5. A method of producing a quadrifilar antenna for circularly polarised radiation at frequencies above 200 MHz, the antenna comprising a plurality of substantially helical conductive radiating tracks located on an electrically insulative substrate, wherein the method comprises monitoring at least one electrical parameter of the antenna and removing conductive material from at least one of the tracks to bring the monitored parameter nearer to a predetermined value, thereby to increase the inductance of the track,

wherein the monitoring step comprises coupling the antenna to a radio frequency source, bringing probes into juxtaposition with the tracks at predetermined locations, and measuring at least the relative phases of signals picked up by the probes associated with different respective tracks when the radio frequency is operated.

6. A method according to claim 5, wherein the probes are capacitively coupled to the respective tracks.

7. A method according to claim 5, wherein the probes are located in registry with track portions corresponding to the positions of voltage minima when the radio frequency source is tuned to the intended operating frequency of the antenna.

8. A method according to claim 5, wherein the probes are located in registry with end portions of the helical tracks.

9. A method according to claim 5 for producing an antenna in which each track has a first end portion adjacent a feed location and a second, opposite end portion spaced from the said feed location, wherein the material removal step comprises forming cut-outs in the first end portions and the monitoring step includes positioning the probes in juxtaposition with the second end portions.

10. A method according to claim 1, wherein material is removed from the tracks by forming a rectangular aperture in each affected track, the aperture having a predetermined width transverse to the direction of the track which is computed automatically in response to the result of the monitoring step.

11. A method according to claim 10, wherein with the width and length of the aperture are variable in response to the said monitoring result.

12. A method according to claim 1, wherein the monitoring step includes feeding the antenna with a swept frequency signal over a frequency range including the intended operating frequency of the antenna, monitoring the relative phases and amplitudes of signals in the radiating tracks, and removing conductive material from at least two of the tracks to bring the frequency at which substantial phase orthogonality occurs closer to the intended operating frequency.

13. A method according to claim 1, wherein the monitoring step includes feeding the antenna with a swept frequency signal over a frequency range including the intended operating frequency of the antenna, monitoring the relative phases and amplitudes of signals in the radiating tracks to bring the difference between the monitored phases at a central resonant frequency nearer to 90°.

20. A method of producing a quadrifilar antenna for circularly polarised radiation at frequencies above 200MHz, the antenna comprising a plurality of helical conductive radiating tracks located on an electrically insulative substrate, wherein the method comprises monitoring at least one electrical parameter of the antenna and removing conductive material from at least one of the tracks to bring the monitored parameter nearer to a predetermined value, thereby to increase the inductance of the track, and wherein the monitoring step comprises coupling the antenna to a radio frequency source, bringing probes into juxtaposition with the tracks at predetermined locations, and measuring at least the relative amplitudes of radio frequency signals picked up by the probes associated with different respective tracks when the radio frequency source is operated.

21. A method according to claim 20, wherein the probes are capacitively coupled to the respective tracks.

22. A method according to claim 20, wherein the probes are located in registry with track portions corresponding to the positions of voltage minima when the radio frequency source is tuned to the intended operating frequency of the antenna.

23. A method according to claim 20, wherein the probes are located in registry with end portions of the helical tracks.

24. A method according to claim 20, wherein the material removal step comprises forming cut-outs in the first end portions and the monitoring step includes positioning the probes in juxtaposition with the second end portions.

25. A method of producing a quadrifilar antenna for circularly polarised radiation at frequencies above 200 MHz, the antenna comprising a plurality of helical conductive radiating tracks located on an electrically insulative substrate, wherein the method comprises monitoring at least one electrical parameter of the antenna and removing conductive material from at least one of the tracks to form an aperture in each affected track to increase the inductance of the track and thereby to bring the monitored parameter nearer to a predetermined value.

26. A method according to claim 25, wherein the aperture is rectangular.

27. A method of producing a quadrifilar antenna for circularly polarised radiation at frequencies above 200 MHz, the antenna comprising a plurality of helical conductive radiating tracks located on an electrically insulative substrate, wherein the method comprises monitoring at least one electrical parameter of the antenna and removing conductive material from at least one of the tracks to bring the monitored parameter nearer to a predetermined value, thereby to increase the inductance of the track, and wherein the monitoring step includes feeding the antenna with a swept frequency signal over a frequency range including the intended operating frequency of the antenna, and monitoring the relative amplitudes of signals in the radiating tracks.

28. (Amended) A method according to claim 3, wherein the flat surface is an end surface of the cylindrical substrate, which surface is substantially perpendicular to a cylinder axis, and wherein the conductive material is removed from at least one ~~a~~ track portion located on the ~~an~~ end surface.

Please add the following new claims:

29. (New) A method according to claim 1, including monitoring relative phases of signals in the radiating tracks to bring the difference between the monitored phases at a central resonant frequency nearer to 90°.